

100/...

AID - P-68

Subject : USSR/Astronomy

Card : 1/1

Author : Mikhailov, A. A.

Title : Names of Constellations and their Abbreviations

Periodical : Astron. zhur., V. XXXI, 1, 97-98, Ja - F 1954

Abstract : A standard list of the names of constellations and of their abbreviations to three letters approved in principle by the Scientific Council of the Pulkovo Observatory for use in Russian literature.

Institution : None

Submitted : April 28, 1953

MIKHAYLOV, Aleksandr Aleksandrovich; BAKULIN, P.I., redaktor; kandidat  
fiziko-matematicheskikh nauk; USPENSKAYA, N.V., redaktor;  
ISLENT'YEVA, P.G., tekhnicheskij redaktor.

[Pulkovo observatory] Pulkovskaya observatoriya. Moskva, 1-ye  
"Znanie," 1955. 23 p. (Vsesoyuznoe obshchestvo po rasprostraneniю  
politicheskikh i nauchnykh znaniy. Ser.3, no.41) (MLBA8:12)

1. Chlen-korrespondent Akademii nauk SSSR. (for Mikhaylov)  
(Pulkovo Astronomical Observatory)

MIKHAYLOV, A.A., otvetstvennyy redaktor; IMSHENETSKIY, Yu.K., redaktor  
izdatel'stva; TVERITINOVA, K.S., tekhnicheskiiy redaktor

[Refraction tables of Pulkovo Observatory] Tablitsy refraktsii  
Pulkovskoi observatorii. Izd. 4-oe. Moskva, Izd-vo Akademii nauk  
SSSR, 1956. 32 p. (MLRA 9:9)

1. Pulkovo. Astronomicheskaya observatoriya. 2. Direktor Glavnoy  
Astronomicheskoy Observatorii SSSR v Pulkove (for Mikhaylov)  
(Refraction, Astronomical--Tables, etc.)



MIKHAYLOV, A.A

Kant's conceptions of the nature of tidal friction. Vop. 1st. est. 1  
tekhn. no. 2: 110-113 '56. (MIRA 10:1)  
(Kant, Immanuel, 1724-1804)

MIKHAYLOV, A.A..

Important works in the field of astrometry; from the program of  
the International Geophysical Year. Vest.AN SSSR 26 no.12:44-47  
D '56. (MLRA 10:1)

1. Chlen-korrespondent Akademii nauk SSSR.  
(Astrometry)

MIKHAYLOV, A.A.

Observation of the Einstein effect [with summary in English].  
Astron.shur.33 no.6:912-927 N-D '56. (MLRA 10:1)

1. Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR.  
(Eclipses, Solar) (Refraction)

MIKHAYLOV, A.A.

Outstanding English astronomer and geophysicist; on the 300th anniversary of Edmund Halley's birth. Priroda 45 no.11:69-73  
N '56. (MLRA 9:11)

1. Chlen-korrespondent Akademii nauk SSSR.  
(Halley, Edmund, 1656-1742)



MICHAYLOV, A. A.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1333  
 AUTHOR MICHAYLOV, A.A.  
 TITLE Observation of the Einstein Effect during a Solar Eclipse.  
 PERIODICAL Usp. fis. nauk, 59, fasc. 1, 51-66 (1956)  
 Issued: 7 / 1956 reviewed: 10 / 1956

The following deals with a lecture delivered on November 30th 1955 at the Einstein Memorial Meeting held by the Department for Physical and Mathematical Sciences.

According to Einstein the deflection of a beam passing the sun is  $0,87''/r$ ;  $r$  denotes the arc from the center of the sun in radians. The technique of recording and the treatment and control of plates are discussed. Above all a sufficient number of bright stars near the sun is required. The African and the Brazilian expeditions in 1919 achieved only partial success because of clouds and probably also because of a cylindrical bending of the heliostat mirror by the heat of the sun. The American expedition to Australia (21.9.1922) had more success, but also the results obtained on this occasion (as also the investigations carried out in the same way) were criticized by some specialists. The investigations carried out on 9.5.1929 by the Potsdam Astrophysical Institute in North Sumatra showed distinctly that an independent determination of the scale of the recordings was not possible with the means available at that time. For purposes of observation during the solar eclipse of 19.6.1936 a special lightproof observation pavilion was built at Blagovesčensk in Eastern Siberia. For the independent determination of the scale of the pictures, a

MIKHAYLOV, Aleksandr Aleksandrovich; YERPYLEV, N.P., red.; YERMAKOVA, Ye.A.,  
tekhn.red.

[Star atlas; containing all stars of both hemispheres of up to 8.25 in magnitude, with indications of variable and double stars and star clusters and nebulae] Zvezdnyi atlas; sodержashchii dlia oboikh polusharii vse svezdy do 8.25 velichiny, s oboznacheniem peremennykh i dvoinykh svezd, svezdnykh skoplenii i tumannostei. Izd.2-oe. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry, 1957. 59 p. and 20 plates (in portfolio).

(MIRA 10:12)

(Stars--Atlases)

4-6-8/30

AUTHOR: Mikhaylov, A.A., Director of the Pulkovo Observatory

TITLE: Answers by A.A.Mikhaylov, Member Correspondent of the Academy of Sciences USSR (otvechayet chlen-korrespondent Akademii nauk SSSR A.A.Mikhaylov)

PERIODICAL: Znaniye - Sila, 1957, # 6, p 13 (USSR)

ABSTRACT: The article consists of answers to questions of readers. The first question answered by the author related to researches to be carried out during the Geophysical Year in the field of astrometry.

These researches are concentrated principally on irregularities in the Earth's rotation, which regulates the astronomical day, and on observations of the movement of the geographical poles on the Earth's surface. A.Ya.Orlov, a Soviet scientist, discovered recently that the North pole is moving slowly towards the 69th meridian of the western longitude.

The second answer deals with the measuring of the Earth's speed of rotation and the movement of the geographic poles. Physicists are endeavouring to construct atomic clocks, enabling the scientists to perform still more precise measurements of the Earth's rotation.

The last question deals with the importance of astrometrical

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4-6-8/30

Answers by A.A.Mikhaylov, Member Correspondent of the Academy of Sciences  
USSR

research.

ASSOCIATION: Pulkovskaya observatoriya (Pulkovo observatory), Akademiya  
nauk SSSR (Academy of Sciences of the USSR)

AVAILABLE: Library of Congress

Card 2/2

MIKHAYLOV, A.A.

What lunar observational data can contribute to geodetical knowledge.  
Geod. i kart. no.9:8-20 S '57 (MIRA 10:11)

1. Chlen-korrespondent AN SSSR.  
(Geodesy) (Moon--Observations)

6-11-8/13

AUTHOR: Mikhaylov, A.A., Corresponding Member AN

TITLE: What Can Observations of the Moon Bring to Geodesy ? (Chto mogut dat' geodezii nablyudeniya Luny) Continuation (Prodolzheniye)

PERIODICAL: Geodeziya i Kartografiya, 1957, Nr 11, pp. 53-63 (USSR)

ABSTRACT: In the first chapter the covering of stars by the moon is treated and it is shown that, in comparison with the darkenings, the advantage in the coverings consists of the fact that due to the variety of hour-angles and declinations of the moon the differential coefficients in the conditional equation set up here and thereby the accuracy of the determination of the corresponding unknown quantities is higher. The disadvantage of the coverings is the small accuracy and the one-sidedness of the moments of observation, the difficulty of taking into account the unevennesses of the edge of the moon and the strong influence of the moon-coordinate-errors. The second chapter deals with the determination of the moon coordinates according to the photographic method. This consists of the photographic determination of the equatorial moon coordinates relatively with the stars surrounding it and lying close to it. The theory of the method and an

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What Can Observations of the Moon Bring to Geodesy ?-Continuation

explanation of the process of observation are given. It is pointed out that with a sufficient number of observations the method described here will bring on the expected results. The third chapter describes the methods for an observation of the moon: the so-called Pulkovian (observatory of Pulkov) method, worked out by the author himself, and the so-called Washingtonian method worked out by W. Markovitz in the lake-observatories of Washington. It is pointed out that the Pulkovian method, although on the one hand, it has more essential accidental errors than the Washington method, on the other hand it possesses less systematic errors. Therefore it is to be assumed that, when the number of observations is increased, the accuracy of the final results will be higher with the Pulkovian method. In the fourth chapter the measurement of the photographs of moon and stars is treated. The experience in Pulkov did not bring on good results. Summarizing the author states that the remoteness of the moon from the earth and the small lunar parallax caused by this render a geodetical utilization of the moon very difficult. Only the employment of new methods, including photography, photoelectricity and electronics promise to attain the desired accuracy. There are 8 figures.

Library of Congress

AVAILABLE:  
Card 2/2

26-11-10/16

**AUTHOR:** Mikhaylov, A.A., Corresponding Member of the USSR Academy of Sciences

**TITLE:** Contribution of Soviet Astronomy (Vklad Sovetskoy astronomii)

**PERIODICAL:** Priroda, 1957, # 11, p 79-88 (USSR)

**ABSTRACT:** The author describes the advances in astronomy in the 40 years of Communist regime. Astronomical observations in czarist Russia were conducted mainly by observatories attached to universities. They had obsolete equipment and were used for training students of astronomy. Only the observatories of Pulkovo and Moscow were furnished with modern equipment. Pulkovo, which had been completely destroyed during World War II, was rebuilt in 1946 (Photo on page 81). The Simeiz observatory in the southern USSR, formerly controlled by Pulkovo, was also rebuilt and now forms a part of the newly constructed astrophysical observatory located near Bakhchisaray in the Crimea (Photo on page 82) and which belongs to the USSR Academy of Sciences. A whole range of smaller observatories was built in a number of other Soviet republics

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Contribution of the Soviet Astronomy

26-11-10/16

of which the Abastuman observatory in the Georgian SSR is worth mentioning for its excellent 70 cm meniscus telescope (Photo on page 84), which is automatically controlled and has been designed by the Lenin prize winner B.K.Ioannisiani. Close contact among all Soviet observatories and astronomers, and the introduction of the "collective" working system, account for the progress made by astronomers in the USSR during the past 10 - 12 years. In connection with the International Geophysical Year, Soviet observatories especially concentrate on: the observation of complex movements of the earth's poles, on the phenomena in the solar photosphere, chromosphere and corona, and on the registration and determination of exact time. Of the fast developing fields in Soviet astronomy, astrophysics may be especially mentioned (Photo of 21 inch telescope at Byurakansk observatory on page 85) and a new branch of science - radioastronomy (Photo of radio-telescope on page 87). Soviet astronomers have had an

Card 2/3'

Contribution of the Soviet Astronomy

26-11-10/16

important share in the development of methods in radio-astronomy and in the interpretation of astronomical observations in general.

There are 6 photos.

ASSOCIATION: USSR Academy of Sciences (Akademiya nauk SSSR)

AVAILABLE: Library of Congress

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MIKHAYLOV, A.A.

Wide prospects. Nauka i zhizn' [24] no.11:31 [N] '57. (MIRA 10:11)

1. Chlen-korrespondent AN SSSR, direktor Glavnoy astronomicheskoy  
observatorii v Pulkove.  
(Artificial satellites) (Astronomy) (Geodesy)

AUTHOR: Mikhaylov, A. A.

33-3-1/32

TITLE: On the observation of the artificial satellites.  
(O nablyudenii iskusstvennogo sputnika).

PERIODICAL: "Astronomicheskii Zhurnal" (Journal of Astronomy),  
1957, Vol.34, No.3, p.313 (U.S.S.R.)

ABSTRACT: As is known, during the I.G.Y. artificial satellites will be sent up and it is hoped to use them to obtain valuable information about the upper layers of the atmosphere, the form, and the composition of the Earth. Soviet astronomers will have the difficult problem of visual observation of such satellites. They will have a stellar magnitude of 4-9 and a period of about 1 1/2 hours. At any given point observations will be possible for only 2 minutes at a time. It is necessary to organise a network of stations, each having ten to twenty observers. The Astronomical Council of the Ac.Sc. U.S.S.R. is appealing to all the appropriate institutions for cooperation in this project. Instructions and special apparatus will be obtainable through the Astronomical Council.

ASSOCIATION: Chairman of Astronomical Council, Ac.Sc. U.S.S.R.  
(Predsedatel' Astronomicheskogo Soveta AN SSSR Chlen-Korrespondent AN SSSR)

AVAILABLE: Library of Congress

Card 1/1

MIKHAYLOV, A.A.

~~MIKHAYLOV, A.A.~~

"Historical astronomical studies" edited by P.G. Kulikovskii.  
Reviewed by A.A. Mikhailov. Astron.zhur. 34 no.3:495-499  
My-Je '57. (MLRA 10:7)  
(Astronomy--History)

MIKHAYLOV, A.A.

Remarks on V.F. D'iakonov's article "Influence of diurnal aberration on the accuracy of determinations from observations of Polaris" [with summary in English]. Astron. zhur. 34 no.6:952-953 H-D '57. (MIRA 11:2)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.  
(Latitude) (Astronomy, Spherical and practical)  
(D'iakonov, V.F.)

MIKHAYLOV, A.A.

Observation of artificial satellites. Astron. tsir. no. 180:1  
Mg '57. (MIRA 13:4)

1. Predsedatel' Astronomicheskogo Soveta AN SSSR, člen-  
korrespondent AN SSSR.  
(Artificial satellites)

MIKHAYLOV, A.A.

[Stellar atlas; four maps of the stars to a declination of  $-50^{\circ}$  containing all stars up to a magnitude of 5.5] Zvezdnyi atlas; chetyre karty zvezdnogo neba do  $50^{\circ}$  iuzhnogo skloneniia, soderzhashchie vse zvezdy do  $5\frac{1}{2}$  velichiny. Izd. 3., perer. Moskva, Izd-vo Akad. nauk SSSR, 1958. 12 p. (MIRA 11:9)

(Stars--Atlases)



DADAYEV, Aleksandr Nikolayevich; ~~MIKHAYLOV, A.A.~~, otv.red.; ARON, G.M.,  
red.izd-va; BLEYKH, E.Yu., tekhn.red.

[The Pulkovo Observatory] Pulkovskaya observatoriya. Moskva,  
Izd-vo Akad.nauk SSSR, 1958. 50 p. (MIRA 12:10)

1. Chlen-korrespondent AN SSSR (for Mikhaylov).  
(Pulkovo Observatory)

MIKHAYLOV, Aleksandr Aleksandrovich

[Tables for approximate solution of inverse geodetic problems]

Tablitsy dlia priblizhennogo resheniia obratnoi geodezicheskoi  
zadachi. Leningrad, Izd-vo Akad.nauk SSSR, 1958. 100 p.

(MIRA 12:11)

(Geodesy--Tables, etc.)

GINDIN, Ye.Z.; LEYKIN, G.A.; LOZINSKIY, A.M.; MASEVICH, A.G.; AL'PERT, Ya.L.;  
CHUDSENKO, M.F.; SHAPIRO, B.S.; GALKIN, A.M.; GORLOV, O.G.; KOTOVA,  
A.P.; KOSOV, I.I.; PETROV, A.V.; SEROV, A.D.; CHERNOV, V.N.;  
YAKOVLEV, V.I.; MIKHAYLOV, A.A., otvetstvennyy red.; BEN'KOVA, N.P.,  
doktor fiz.-mat. nauk, otvetstvennyy red.; SILKIN, B.I., red.;  
PODOL'SKIY, A.D., red.; PRUSAKOVA, T.A., tekhn. red.

[Preliminary results of the scientific research on the first  
Soviet artificial earth satellites and rockets; collection of  
articles in the 11th section of the IGY program (rockets and  
satellites)] Predvaritel'nye itogi nauchnykh issledovaniy s  
pomoshch'yu pervykh sovetskikh iskusstvennykh sputnikov zemli  
i raket; sbornik statei (XI razdel programmy MGO - rakety i  
sputniki). Moskva, Izd-vo Akad. nauk SSSR. No.1. 1958. 148 p.  
(MIRA 11:10)

1. Russia (1923- U.S.S.R.) Mezhdunarodnyy komitet po  
provedeniyu Mezhdunarodnogo geofizicheskogo goda. 2. Chlen-kor-  
respondent AN SSSR (for Mikhaylov).

(Atmosphere, Upper—Rocket observations)  
(Artificial satellites)

NEMCHENKO, V.S.; BOCHAROV, M.D.; KRISTOSTUR'YAN, N.G.; CHERKASOV, V.I.;  
 ANDREYANOV, V.V.; KAUFMAN, V.M.; PAKHMANOV, V.F.; ZVORYKIN, A.A.,  
 otv.red.; ANICHKOV, N.N., red.; BARDIN, I.P., red.; BLAGONRAVOV,  
 A.A., red.; VVEDENSKIY, B.A., red.; GRIGOR'YEV, A.A., red.;  
 KAPUSTINSKIY, A.F., red.; KOLMOGOROV, A.N., red.; MIKHAYLOV, A.A.,  
 red.; OPARIN, A.I., red.; PETROV, F.M., red.; STOLETOV, V.N., red.;  
 STRAKHOV, N.M., red.; FIGUROVSKIY, N.A., red.; KOSTI, S.D., tekhn.red.

[Biographical dictionary of leaders in the natural sciences and  
 technology] Biograficheskiy slovar' deiatelei estestvoznaniia  
 i tekhniki. Vol.1. A - L. Otvetstvennyi red. A.A.Zvorykin. Red.  
 kollegiia: N.N.Anichkov i dr. Moskva, Gos.nauchn.izd-vo "Bol'shaia  
 Sovetskaya Entsiklopediya." 1958. 548 p. (MIRA 12:4)

1. Redaktsiya istorii estestvoznaniya i tekhniki Bol'shoy Sovetskoy  
 Entsiklopedii (for Nemchenko, Bocharov, Kristostur'yan, Cherkasov,  
 Andreyanov, Kaufman, Pakhmanov).

(Scientists)

SOV/25-58-11-20/44

AUTHOR: Mikhaylov, A.A., **Corresponding Member** and Chairman of the  
Astronomical Council of the USSR Academy of Sciences

TITLE: Modern Problems of Astronomy (Sovremennyye problemy astro-  
nomii)

PERIODICAL: Nauka i zhizn', 1958, Nr 11, pp 55-60 (USSR)

ABSTRACT: The article summarizes the main results of the 10th Congress  
of the International Astronomical Union held in Moscow from  
12 to 20 August, 1958. The Congress was attended by more  
than 1,000 scientists from 35 countries and was divided into  
more than 50 commissions and sub-commissions. Various fields  
of astronomy and astrophysics were discussed with particular  
attention to the correlation between solar and terrestrial  
phenomena. The results of observations made in this field  
in the Eastern and Western hemispheres were compared and dis-  
cussed. **Corresponding Member** of the USSR Academy of Sciences  
E.R. Mustel' reported on the effect of corpuscular streams  
from the sun upon the intensiveness of radio radiation and  
the formation of magnetic storms. Professor A.P. Levernny  
spoke on his original observations of the magnetic field of

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Modern Problems of Astronomy

SOV '25-58-11-20 '44

the sun. The Congress discussed the results obtained from the launching of rockets and earth-satellites. The Soviet scientists A.Ye. Zhudakov, V.I. Krasovskiy, T.I. Nazarova, A.L. Al'pert and others reported on their studies of the cosmic rays of corpuscular streams, meteor particles, etc. with the help of sputniks and rockets. V.I. Krasovskiy was of the opinion that corpuscular solar streams are really electrons with an energy of about 10 kev arising along magnetic lines of force in the outer atmosphere and the lower layers of the ionosphere under the action of magnetic fields connected with corpuscular streams from the sun. They are capable of increasing the ionization of the upper layers of the atmosphere. Ye.P. Fedorov substantiated and developed the theory of the rotation of an earth with a liquid core, a theory put forward by F.A. Sludskiy and N.Ye. Zhukovskiy. The Congress also dealt with problems of accurate time measurement, referred to the structure and origin of comets, etc. T.Yu. Levin and S.M. Poloskov also took part in the discussions. There are 5 photos.

Card 2/2

MIKHAYLOV, A.A.

What geodesy will gain from observations made by the Sputnik.  
Znan. sila 33 no.3:35 Mr '58. (MIRA 11:4)  
(Artificial satellites)  
(Earth--Figure)

SEMENOV, A.I., otv.red.; FILIPPOV, Yu.V., prof., doktor tekhn.nauk, red.;  
 BASHLAVIN, V.A., kand.tekhn.nauk, red.; VOYNOVA, V.V., red.; GURARI,  
 Ye.L., kand.ekonom.nauk, red.; GUREVICH, I.V., red.; ZHIV, I.S., red.;  
 ZARUTSKAYA, I.P., red.; ZASLAVSKIY, I.I., red.; KOZLOV, F.M., red.;  
 NIKISHOV, M.I., kand.geograf.nauk, red.; SADCHIKOV, S.F., red.;  
 TIKHOMIROV, D.I., red.; TUTOCHKINA, V.A., red.; BALANTSEVA, I.A., red.  
 kart; BOGDANOVA, L.A., red.kart; BOCHAROVA, I.L., red.kart; VENEVTSEVA,  
 G.P., red.kart; VOLKOVA, A.P., red.kart; GOSTEVA, N.A., red.kart;  
 YEFIMOVA, G.N., red.kart; ZHIV, D.I., red.kart; KRAVCHENKO, A.V., red.  
 kart; KUBRIKOVA, N.S., red.kart; KUZNETSOVA, N.A., red.kart; KURSAKOVA,  
 I.V., red.kart; LOBZOVA, N.A., red.kart; MERTSALOVA, L.M., red.kart;  
 MOSTMAN, S.L., red.kart; PANFILOVA, M.V., red.kart; SEMENOVA, V.D.,  
 red.kart; SMIRNOVA, T.N., red.kart; TERESHKOVA, V.S., red.kart;  
 FEDOROVSKAYA, G.P., red.kart; FETISOVA, N.P., red.kart; FIL'GUS, Z.Kh.,  
 red.kart; SHAPIRO, Ye.M., red.kart; SHISHKIN, Ye.A., red.kart; YASHU-  
 NICHKINA, Ye.G., red.kart. V razrabotke kart prinimali uchastiye:  
 ALISOV, B.A., prof.; BERZINA, M.Ya.; VASILEVSKIY, L.I.; GAVRILOVA,  
 S.A., kand.geograf.nauk; GINZBURG, G.A., kand.tekhn.nauk; DOBOSHINSKAYA,  
 I.B.; YEVSTIGHNEYEVA, A.I.; LAVRENKO, Ye.M., prof.; LOZINOVA, V.M., kand.  
 tekhn.nauk; MILANOVSKIY, Ye.Ye., kand.geologo-mineral.nauk; MIKHAYLOV,  
 A.A., prof.; MYSHKIN, Ye.P.; PUZANOVA, V.F., kand.geograf.nauk;

(Continued on next card)



SEMENOV, A.I.---(continued) Card 2.

ROZOV, N.H., prof.; SMIRNOV, D.I.; TARASOV, A.P.; TROPIMOVSKAYA, Ye.A., kand.geograf.nauk; TUGOLESOV, D.A., kand.geologo-mineral.nauk. ZININ, I.F., tekhn.red.

[Geographical atlas for secondary school teachers] Geograficheski atlas; dlia uchitelei srednei shkoly. Izd.2. Moskva, Glav.upr. geodezii i kartografii MVD SSSR, 1959. 191 p. (MIRA 12:11)

1. Predstavitel' Nauchno-issledovatel'skogo instituta metodov obucheniya Akademii pedagogicheskikh nauk RSFSR (for Zaslavskiy).
2. Predstavitel' Upravleniya shkol Ministerstva prosvyeshcheniya RSFSR (for Tutochkina). 3. Chleny-korrespondenty AN SSSR (for Lavrenko, Mikhaylov).

(Maps)

3(1)

SOV/25-59-4-11/44

AUTHOR: Mikhaylov, A.A., Corresponding Member , Chairman

TITLE: Time and the Earth (Vremya i Zemlya)

PERIODICAL: Nauka i zhizn'. 1959, Nr 4, pp 27-32 (USSR)

ABSTRACT: The author points out that the rotation of the earth cannot be taken as the only standard of time because the speed of rotation of the earth is not constant. Due to the non-uniformity of the mean solar time based on the rotation of the earth, a new uniform type of time - called ephemeris time - was introduced. This time is determined by the revolution of the earth about the sun, as indicated by lunar motion about the earth. The author explains quartz clocks, as well as molecular and atomic clocks, mentioning in this

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SCV/25-19-4-11/44

Time and the Earth

connection the two Moscow physicists N.G. Basov and A.M. Prokhorov. There are 5 drawings.

ASSOCIATION: Astronomicheskii sovet Akademii nauk SSSR (The Astronomic Council of the AS USSR)

Card 2/2

MIKHAYLOV, Aleksandr Aleksandrovich; RAKHLIN, I.Ye., red.; FLAKSHE,  
L.Yu., tekhn.red.

[Total solar eclipse of February 15, 1961] Polnoe solnechnoe  
zatmenie 15 fevralia 1961 goda. Moskva, Gos.isd-vo fiziko-matem.  
lit-ry, 1960. 45 p. (MIRA 14:1)  
(Eclipses, Solar--1961)

BARABASHOV, N.P., red.; MIKHAYLOV, A.A., red.; LIPSKIY, Yu.N., red.

[Atlas of the other side of the moon] Atlas obratnoi storony  
Luny. Moskva, 1960. 149 p. illus. (Obrazovaniia, vyiavlennye  
na obratnoi storone Luny po fotografiiam, poluchennym avtoma-  
ticheskoi mezhplanetnoi stantsiei 7-go oktiabria 1959 goda).

(MIRA 13:12)

1. Akademiya nauk SSSR. 2. Astronomicheskaya observatoriya pri  
Khar'kovskom gosudarstvennom universitet im. A.M.Gor'kogo (for  
Barabashov). 3. Gosudarstvennyy astronomicheskii institut im. P.K.  
Shternberga, Moskva (for Lipskiy).

(Moon--Surface)

MIKHAYLOV, A. P.

A

Akademiya Nauk SSSR.

Atlas of the far side of the moon. Edited by  
M.P. Baraboshov, I.A. Mikhaylov and Yu. N. Lipskiy.  
Wright-Patterson Air Force Base, Technical Informa-  
tion Center, Liaison Office, 1-60.

vi, 157 p. 11 pls., 11 figs., maps, tables.

Translated from the original Russian: Atlas obozretiy  
storonnykh luny, Moscow, 1960.

Bibliography: p. 36.

MIKHAYLOV, A.A., otv.red.; MARTYNOV, D.Ya., doktor fiz.-mat.nauk, zam.otv.  
red.; DURNEV, A.I., doktor tekhn.nauk, red.; SOLOV'YEV, M.D.,  
doktor tekhn.nauk, red.; POPOV, P.I., prof., red.; PARENAGO, P.P.,  
red. [deceased]; FEDYNSKIY, V.V., doktor fiz.-matem.nauk, red.;  
BAZYKIN, V.V., red.; BRONSHTEIN, V.A., red.; SAMSONENKO, L.V.,  
red.izd-va; LEBEDEVA, L.A., tekhn.red.

[Proceedings of the Second Congress of the All-Union Astronomical  
Geodetic Society] Trudy Vtorogo s"ezda Vsesoyuznogo astronomo-  
geodezicheskogo obshchestva. Moskva, Izd-vo Akad.nauk SSSR, 1960.  
151 p. (MIRA 14:2)

1. S"yezd Vsesoyuznogo astronomo-geodezicheskogo obshchestva. 2d,  
Leningrad, 1955. 2. Chleny-korrespondenty AN SSSR (for Mikhaylov,  
Parenago). (Astronomy, Spherical and practical--Congresses)  
(Geodesy--Congresses)

*Invitation to ...*

PHASE I BOOK EXPLOITATION

SOV/5031

Mikhaylov, A. A., ed., Corresponding Member, Academy of Sciences  
USSR

Solnechnyye zatmeniya i ikh nablyudeniya (Observations of Solar  
Eclipses) Moscow, Fizmatgiz, 1960. 238 p. 12,000 copies printed.

Compilers: (Title page): V. A. Bronshten, Ye. Ya. Bugoslavskaya,  
N. Ya. Bugoslavskaya, S. K. Vsekhsvyatskiy, M. M. Dagayev, M. M.  
Lepskiy, A. A. Mikhaylov, S. I. Sivkov and V. T. Ter-Oganezov.

Sponsoring Agency: Vsesoyuznoye astronomo-geodezicheskoye obshchestvo.  
Ed.: I. Ye. Rakhlin; Tech. Ed.: N. Ya. Murashova.

PURPOSE: This book is intended for student and amateur astronomers.

COVERAGE: This collection of articles on solar eclipse phenomena  
has been published to aid amateur astronomers in the observation  
of the eclipse of February 15, 1961. Individual articles dis-  
cuss the mechanics of solar eclipses, photographic and photo-  
metric investigations of the corona, brightness distribution,

~~card 1/5~~



Observations of Solar Eclipses

SOV/5031

atmospheric optics, and actinometric and meteorological observations. A map showing the track of the total eclipse of February 15, 1961 is included and explained. No personalities are mentioned. There are 74 references, all Soviet.

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Observations of Solar Eclipses

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Card ~~3/5~~

ONEVYSHEVA, R.S.; MIKHAYLOV, A.A., prof., otv.red.

[Catalog of solar activity in 1956] Katalog solnechnoi  
deiatel'nosti za 1956 g. Leningrad, Izd. Glav.astronomicheskoi  
observatorii v Pulkove, 1960. 255 p. (MIRA 13:12)

1. Direktor Glavnoy astronomicheskoy observatorii v Pulkove;  
chlen-korrespondent AN SSSR (for Mikhaylov).  
(Sun--Catalogs)

PHASE I BOOK EXPLOITATION

SOV/4946

Mikhaylov, A. A., ed.

Stantsii v kosmose; sbornik statey (Space Stations; Collection of Articles) Moscow, Izd-vo AN SSSR, 1960. 444 p. 25,000 copies printed. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya Seriya)

Resp. Ed.: A. A. Mikhaylov; Compiler: V. V. Fedorov; Ed. of Publishing House: Ye. M. Klyaus; Tech. Ed.: I. D. Novichkova.

PURPOSE: This book is intended both for the space specialist and the average reader interested in space problems.

COVERAGE: The book contains 73 short articles by various Soviet authors on problems connected with space travel and the launching of artificial earth satellites and space rockets. Some possibilities of future developments are also discussed. The articles were published in the period of 1957-1960. No personalities are mentioned. There are no references.

~~Case 1/14~~

Space Stations (Cont.)

SOV/4946

Mikhaylov, A. A., Corresponding Member of the Academy of Sciences USSR. Soviet Space Rocket Approaches the Perihelion [October 18, 1959] 340

Shishakov, V., Candidate of Pedagogic Sciences. The Far Side of the Moon [October 8, 1959] 344

Siforov, V. I., Corresponding Member of the Academy of Sciences USSR. Outer Space Photography [October 28, 1959] 348

Dobronravov, V. V., Doctor of Physical and Mathematical Sciences. Automatic Scout of Outer Space [October 28, 1959] 351

Barabashov, N. P., Active Member of the Academy of Sciences UkrSSR. Our Laboratory Is Outer Space [November 3, 1959] 355

Danilin, B. S., Candidate of Technical Sciences. Investigations Broadening Our Knowledge of the Universe

~~Card 10/14~~

PHASE I BOOK EXPLOITATION

SOV/4374

*Astronomiya* v SSSR za sorok let 1917 - 1957; sbornik statey (Forty Years of Astronomy in the USSR, 1917-1957; Collection of Articles) Moscow, Fizmatgiz, 1960. 728 p. 2,000 copies printed.

Ed.: L. V. Samsonenko; Tech. Ed.: N. A. Tumarkina; Editorial Board: A. A. Mikhaylov (Resp. Ed.), M. S. Zverev, P. G. Kulikovskiy, A. G. Masevich, E. R. Mustel'; V. V. Sobolev, and M. F. Subbotin.

PURPOSE: This book is intended for astronomers, astrophysicists, and others interested in the history of astronomy in the USSR.

COVERAGE: This major work on the history of astronomy in the USSR consists of two parts, review articles and bibliographies. Part I contains a collection of articles on various facets of astronomical research written by leading Soviet specialists in the field. Chief emphasis is placed on developments of the last ten years. The research activities and equipment of 23 Soviet observatories and institutes are described, and the leading scientific personalities of each mentioned. The geographic coordinates and elevations of 41 astronomical centers are listed. Individual articles discuss problems dealing with

Card 1/9.

Forty Years of Astronomy (Cont.)

SOV/4374

theoretical astronomy, minor planets, comets and meteors, the physics of stellar atmospheres and gaseous nebulae, cosmogony, and radioastronomy. Part II contains a comprehensive bibliography (over 9,500 items) of Soviet astronomical publications from 1917 to 1957. An author index lists some 1,800 astronomers with references to their contributions. The bibliographic part was compiled by N. B. Lavrova, N. D. Petrova, Ya. G. Perel', and T. A. Zalkind.

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Card 5/9	

MIKHAYLOV, A. A.

"The Reverse Side Of The Moon".

paper presented at IAU Symposium on the Moon, Leningrad, USSR, 6-8 Dec. 1960.

The third Soviet interplanetary rocket, launched on Oct. 4, 1959, put into orbit an automatic station with two cameras. On Oct. 7 at 4<sup>h</sup> UT, when the station was behind the Moon and near the line joining the Moon and the Sun, the cameras were directed towards the Moon on a command from the earth. A number of photographs of the reverse side of the Moon were taken, which after development, fixing and drying were transmitted by TV to the Earth. The obtained negatives were studied independently at: The Pulkovo and Kharkov observatories and the Sternberg Astronomical Institute together with the Moscow Institute of Geodesy, Cartography and Aerosurvey. A detailed catalogue and map of the detected formations on the reverse side of the Moon were compiled. The reverse side differs from the visible in that numerous and extended maria are absent and a large fraction of the surface is covered by craters and ring mountains. The difference is difficult to explain by the influence of the Earth and is apparently due to internal causes which acted during the formation of the lunar surface.

*Pulkovo Observatory*

3,1300

S/035/61/000/006/003/044  
A001/A101

AUTHOR: Mikhaylov, A.A

TITLE: Report on the activity of VAGO and prospects of its operations

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 6, 1961, 5, abstract 6A32 ("Tr. 1-go s'yezda Vses. astron.-geod. o-va. 1955", Moscow, AN SSSR, 1960, 13 - 29, Discus. 33 - 37)

TEXT: This is a survey of the activities of the Society during the time from the first to the second congresses (1934-1955). In 1940 the Society had 14 branches and sections with 870 members and in 1954 - 22 branches and sections with 1,270 members (without members of the youth sections). The progress of scientific work of the Society and its branches is noted (in particular, studies of solar activity, observations of solar eclipses of 1936, 1941, 1945, 1954, as well as lunar eclipses, publishing instructions for these observations; investigations on meteoric astronomy; studies of variable stars; activities of the geodesic sections). The list of scientific conferences and meetings held is presented, as well as discussions on new publications. The educational and popularization work of the Society is characterized: In 1949, sections of VAGO conducted 316 arrangements

Card 1/2

Report on the activity of VAGO ...

S/035/61/000/006/003/044  
AGG1/A101

(lectures, conversations and excursions) with 23,700 participants; in 1964 - 1,075 arrangements with 131,000 participants. The publishing activity of the Society is described (publishing "Bulletin of VAGO", "Astronomical Calendar", etc.). General conclusions on the activities of the VAGO are drawn; successes and shortages are analyzed, and the necessity of the further development of scientific and popularization work of the VAGO is emphasized.

Yu. Perel'

[Abstracter's note: Complete translation]

Card 2/2

84894

S/004/60/000/010/006/000  
A005/A001

3.1530

AUTHOR

Mikheylov, A. Corresponding Member of the Academy of Sciences of  
the USSR

TITLE

Ray and Gravitation

PERIODICAL: Znaniye - SSSR, 1960, No 10, p 27

TEXT.

The author considers the problem of deflection of light by material bodies and the discrepancy between the Newtonian theory of mechanics and the Einsteinian theory of relativity. According to the latter, light deflection should be twice as great as that by the first theory. In this way, the Einsteinian theory can be checked when determining experimentally the light deflection by the Sun of stars behind the Sun. Theoretically, this deflection amounts to 0.875 and 1.75 respectively. The observations and measurements were carried out during the total solar eclipse by photographing the sky region near the shadowed Sun and photographing the same sky region an half year later, when the Earth is on its orbit in opposite position to the Sun; the latter photographs give the picture without Sun's deflection. In 1936, the author performed the observation of the solar eclipse during an expedition in Far East with an astrograph having 6 m

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84894

S/004/60/000/010/006/008

A005/A001

Ray and Gravitation

focal distance, the maximum shift of the stars amounted to 0.025 mm on the photoplate, but the measurement presents difficulties due to the solar corona veiling the surroundings of the Sun. The observations carried out first in 1919 by two English expeditions yielded values of deflection near the Einsteinian theory. Other observations yielded the value of about 2 seconds reduced to the edge of the solar disk and substantiated the theoretical prediction. These expeditions were: 1922 - the American expedition to Australia, 1929 - the German one to Sumatra, 1936 - the Soviet in Far East, 1947 - the American to Brazil, and 1952 - to Sudan.

Card 2/2

MIKHAYLOV, A.A.

Tides. Nauka i zhizn' 27 no.6:77 Je '60.

(MIRA 13:7)

1. Chlen-korrespondent Akademii nauk SSSR.  
(Tides)





7400

SOV 31-12-1974

Information for observatories  
referred.

Observatory of the Academy of  
Sciences of the USSR (Akademiya astronomicheskaya observatoriya  
SSSR).

MIKHAYLOV, A.A.

Review of "Ecliptical atlas" by Antonin Bečvář. Astron. zhur.  
37 no.4:782-783 J1-Ag '60. (MIRA 13:8)  
(Stars--Atlases)  
(Bečvář, Antonin)

MIKHAYLOV, A.A. (Pulkovo)

Outstanding American astrophysicist. Priroda 49 no.5:107  
My '60. (MIRA 13:5)

1. Chlen-korrespondent AN SSSR.  
(Young, Charles Augustus, 1834-1908)

MIKHAYLOV, A.A.

Tireless explorer of the Universe. Priroda 49 no.11:42-45  
# '60. (MIRA 13:11)

1. Chlen-korrespondent AN USSR.  
(Newcomb, Simon, 1835-1909)

MIKHAYLOV, A. A. (Prof. \_

"Explofation of the Moon in the USSR."

paper presented by author at the Intl. Symposium on Space Age Astronomy,  
Pasadena, Calif. 7-9 Aug 1961.

Pres. Astronomical Council, Acad. Sci. USSR

82931

S/030/61/000/001/004,017

B105/B206

3,1550 (1057,1062,1129)

AUTHOR: Mikhaylov, A. A., Corresponding Member AS USSR

TITLE: The first map of the far side of the moon

PERIODICAL: Vestnik Akademii nauk SSSR, no. 1, 1961, 39-42

TEXT. An interplanetary rocket was started in the USSR in January 1959 which passed close by the moon and became an artificial planet of the solar system. The possibility of reaching a point from which the rear side of the moon gets visible, was thus proved. The problem remained of photographing this side and transmitting the pictures back to earth. This problem was solved by the third interplanetary rocket started in the USSR on October 4, 1959, the last stage of which brought into orbit an automatic station with two objectives and a 35 mm film. On October 7, the automatic station was at a distance of 65,000 km from the moon. By a command from the earth, both objectives exposed the cine film which was then automatically developed, fixed and dried in the container. This process took place in a special apparatus which warranted the

Card 1/4

89935

S/030/61/000/001, 004, 017  
B105/B206

The first map of the far side ...

normal course of the photochemical processes under conditions of weightlessness. After several days the negatives were transmitted back to the receiving station in the USSR by means of radiophototransmission. The original negatives were reproduced in three specimens and positive enlargements were made. This material was handed to the astronomicheskaya observatoriya (Astronomical Observatory) of the Khar'kovskiy universitet (Khar'kov University), the Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR (Main Astronomical Observatory of the Academy of Sciences USSR) at Pulkovo and the Gosudarstvennyy astronomicheskii institut im. P. K. Shternberga (State Astronomical Institute imeni P. K. Shternberg) in Moscow. The most detailed study was made in Moscow under participation of the Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, kartografii i aeros'yemki (Central Scientific Research Institute of Geodesy, Cartography and Aerial Surveying). Every detail discovered was entered into the general catalog which was incorporated into the Atlas obratnoy storony Luny (Atlas of the Far Side of the Moon), published by the Akademiya nauk SSSR (Academy of Sciences USSR). All formations discovered were divided into three sections according to their reliability and

Card 2/h



89135

The first map of the far side ...

S/030/61/000/001/004/017  
B105/B206

entered into the map of the moon. The far side of the moon shows few oceans, a fact which could not be explained so far. A Committee for naming the individual formations on the far side of the moon was established by the Academy of Sciences USSR. It is finally stated that the atlas of the far side of the moon represents a new era in the study of cosmic objects: an observation station can be brought to an arbitrary point of the solar system, from which phenomena may be observed and studied which are not traceable by observers on the earth. There is 1 figure.

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89935

S/030/61/000/001/004/017  
B105/B206

The first map of the far side ...

Legend: Map of the far side of the moon. Scale 1 : 10,000,000.  
The meridional strip between 30° and 70° longitude was made according  
to maps of the visible side of the moon. Explanation of symbols:  
○ reliable formations with clear contours, ○ formations with less  
clear contours, ○ formations the contours of which must be explained,  
○ formations darker than the background, ○ formations brighter  
than the background. 142 catalog numbers of the formations,  
— bright rays, — — — — limit of visibility.

NOTE: The map of the far side of the moon is too large to fit to  
masters; therefore, it is impossible to include it.

Card 4/4

3,1550 (1057, 1062, 1121)

1058/1027

AUTHOR: Mikhaylov, A. A., Corresponding Member (see Ass.)  
and Director  
TITLE: The reverse side of the Moon  
PERIODICAL: Nauka i zhizn', no. 3, 1961, 22-25

TEXT: The third Soviet interplanetary station was launched on 4 Oct 1959 and placed into orbit around the Moon which was to take photographs of the reverse side of the Moon. The automatic station was equipped with two cameras whose lenses had a focal length of 20 and 50 cm. At 04.00 hrs Universal Time on 7 Oct 59, the station was 65,000 km from the Moon with the same at almost its full phase in relation to the station. At a command from the Earth the cameras were orientated at the Moon and began in turn to expose a standard 35-mm film which was then developed, fixed and dried aboard the station. Photographing lasted for 40 minutes. When the station approached the Earth a few days later the negatives were scanned, converted into radio signals and transmitted back to

Card 1/3

20496

S/025/000/003/005/012

A166/A127

The reverse side of the Moon

earth where they were picked up by Soviet receiving stations and reconverted into pictorial images. Scanning was carried out at two speeds: a slower speed had been chosen for the period when the station was still at a considerable distance from the Earth, and a faster one for closer distances. Each negative was transmitted several times and comparison of the various images helped to eliminate atmospheric distortions of the pictures during deciphering. Three copies of each negative transmitted were made as well as enlarged positive prints. These materials were then distributed to: the Astronomicheskaya observatoriya Khar'kovskogo universiteta (Astronomical Observatory of the Khar'kov University), the Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR (Main Astronomical Observatory of the AS USSR) at Pulkovo and the Gosudarstvennyy astronomicheskii institut imeni Shternberga (State Astronomical Institute imeni Shternberg). After independent studies the results of the investigations were compared. The most exhaustive study was made in Moscow with the assistance of the Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, kartografii i aeros'yemki

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S/025/61/000/003/005/012  
A166/A127

The reverse side of the Moon

(Central Scientific Research Institute of Geodesy, Cartography and Aerial Surveying). The best method of eliminating atmospheric distortion on the photos was by selectively increasing the density of individual frequency bands in the tape recordings of the negatives. Details within the selected band were brought out and stray markings caused by atmospheric distortion eliminated. All objects detected on the photos were described and entered in a general catalogue together with their selenographic coordinates. The reverse side of the Moon differs from the visible side in that it has very few "seas". The author feels that there is no external explanation for this difference but that it is a chance occurrence similar to the difference between the Eastern and Western Hemispheres of the Earth. The data collated from these studies is contained in the Academy of Sciences' recent publication "Atlas of the Reverse Side of the Moon", edited by N. P. Barashov and A. A. Mikhaylov. There are 3 photos (of scientists, including one of the author).

ASSOCIATION: Glavnaya astronomicheskaya observatoriya (Main Astronomical Observatory) at Pulkovo

Card 3/3

MIKHAYLOV, A.A.

A dream come true. Nauka i zhizn' 28 no.4:6 Ap '61. (MIRA 14:5)

1. Predsedatel' Astronomicheskogo soveta AN SSSR.  
(Astronautics)

MIKHAYLOV, A.A.

This is going to be an interesting collection: Nauka i zhizn' 28  
no.8:70 Ag '61. (MIRA 14:8)

1. Direktor Glavnoy astronomicheskoy observatorii Akademii nauk  
SSSR v Pulkove.  
(Tikhov, Gavriil Adrianovich, 1875-1960) (Astronomy)

MIKHAYLOV, A.A.

Some considerations of ~~the computation of refraction~~ Astron.  
zhur. 38 no.4:754-757 J1-ag '61. (MIRA 14:8)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.  
(Refraction, Astronomical)



MIKHAYLOV, A.A.

A problem in the theory of solar eclipses. Astron.zhur. 98 no.6:  
1074-1079 N-D '61. (MIRA 14:11)

1. Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR.  
(Eclipses, Solar)

MIKHAYLOV, A. A.

"The Astronomical Unit of Length"

Soviet Papers Presented at Plenary Meetings of Committee on Space Research  
(COSPAR) and Third International Space Symposium, Washington, D. C.,  
23 Apr - 9 May 62

NEVYSHEVA, Raisa Semenovna; MIKHAYLOV, A.A., prof., otv. red.

[Catalog of solar activity in 1957] Katalog solnechnoi  
deiatel'nosti za 1957 god. Leningrad, Izd. Glav. astrono-  
micheskoi observatorii v Pulkove, 1962. 229 p. (MIRA 16:4)

1. Chlen-korrespondent Akademii nauk SSSR, direktor Glavnogo  
astronomicheskoy observatorii v Pulkove (for Mikhaylov).  
(Sun—Catalogs)

AGEKYAN, T.A.; VORONTSOV-VEL'YAMINOV, B.A.; GORBATSKIY, V.G.; DEYCH,  
A.N.; KRAT, V.A.; MEL'NIKOV, O.A.; SOBOLEV, V.V.; MIKHAYLOV, A.A.,  
otv. red.; KULIKOV, G.S., red.; AKSEL'ROD, I.Sh., tekhn. red.

[Course on astrophysics and stellar astronomy] Kurs astrofiziki i  
zvezdnoi astronomii. 2. izd. Moskva, Fizmatgiz. Vol.2. [By] T.A.  
Agekian i dr. 1962. 688 p. (MIRA 16:1)  
(Astrophysics) (Stars) (Nebulae)

S/026/62/000/010/002/003  
D051/D114

AUTHOR: Mikheylov, A.A., Corresponding Member of the AS USSR

TITLE: The most important problems of lunar investigations

PERIODICAL: Priroda, no. 10, 1962, 7-9

TEXT: In connection with the achievements of Soviet cosmonauts, the author gives his ideas on the future character and tasks of astronomy, particularly with respect to the moon. In addition to continued conventional lunar observations from the earth's surface, the decisive progress in astronomy will consist in sending observational instruments beyond the terrestrial atmosphere to artificial celestial bodies or even to the moon, where the radiation in space can be received unweakened and undistorted. In the light of the recent Soviet cosmic flights, the possibility of organizing first an automatic and then a manned observatory on the moon has acquired a greater reality. Such an observatory will supply new data on the properties of celestial bodies and the interstellar space and also appreciable material on the moon itself. Important results can be expected on the

Card 1/2

The most important problems of ...

S/026/62/000/010/002/001  
D051/D114

origin of the moon, of its craters and cirques, and its top surface layer. Other problems to be solved by a lunar observatory are the abrupt temperature changes and the present transformations on the moon recently observed by the Pulkovo Astronomer N.A. Kozyrev, which indicate a possible existence of low organisms, remnants of former organic life.

ASSOCIATION: Glavnaya Astronomicheskaya observatoriya AN SSSR (Main Astronomical Observatory, AS USSR), Pulkovo

Card 2/2

MIKHAYLOV, A.A.

Meeting of Soviet and German astronomers. Vest. AN SSSR 32  
no.10:84 0 '62. (MIRA 15:10)

1. Chlen-korrespondent AN SSSR.  
(Russia—Foreign relations—Germany)  
(Germany—Foreign relations—Russia)

39535  
S/033/62/039/004/001/008  
E032/E514

3.1410 (also 3805)

AUTHOR: Mikhaylov, A.A.

TITLE: The astronomical unit of length

PERIODICAL: Astronomicheskii zhurnal, v.39, no.4, 1962, 569-582

TEXT: This is a review paper discussing the basic principles and principal results of determinations of the astronomical unit of length and the associated solar parallax by the trigonometric, dynamic, spectroscopic and radar methods. A complete critical review of the various methods and results is not given but particular attention is paid to the basic features of the leading methods and some of the sources of errors which have not been adequately considered so far. Particular attention is paid to the classical trigonometric method of determination of the diurnal parallax. The various methods which have been used so far yield values for the solar parallax lying within the rather wide range 8.787"-8.809". The discrepancies between the results obtained by different methods exceed the estimated random errors of the individual determinations, which indicates the presence of considerable systematic errors. As far as radar methods are

Card 1/3



The astronomical unit of length

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E032/E514

concerned, it is noted that there is extraordinarily good agreement between the results within this group. It might be suspected that the reason for this is that they are all suffering from the same systematic error. For example, the reflected signal is always considered a priori as being delayed relative to the original signal, which tends to increase the distance to the given planet and, moreover, the presence of an interplanetary medium can only give rise to a reduction in the velocity of the waves, which again leads to a tendency to over-estimate the distance. Finally, the size of the particular planet employed contributes an uncertainty because it is not known which part of its surface gives the first noticeable reflection. The general conclusion is that the most probable value of the solar parallax is 8.797", while the most probable value of the astronomical unit is about 149 550 000 km with an uncertainty of up to 50 000 km. This conclusion is based on an examination of the results of all four of the above methods. It is noted that although this is a large uncertainty, it is relatively speaking similar to that with which the length of the standard metre was known at the time of the French Revolution when the metre was defined as a fraction of the

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The astronomical unit of length

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length of the Paris meridian. Future developments are expected to occur along the following lines: firstly, the accuracy of the radar method will be increased by taking into account the effect of the interstellar medium on the signal velocity, by the development of improved apparatus and by extending existing knowledge about the reflecting properties of planets. Secondly, it may become possible to make use of the triangle with the earth, the moon and the planet at the corners of the triangle and the earth-moon line as the base. This will require the presence of a suitable instrument on the moon. This method may increase the accuracy of the determination of the astronomical unit by two orders of magnitude.

ASSOCIATION: Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR (Main Astronomical Observatory, AS USSR)

SUBMITTED: April 11, 1962

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MIKHAYLOV, A.A.

The most important problems of lunar research. Priroda 51  
no.10:7-9 0 '62. (MIRA 15:10)

1. Glavnaya astronomicheskaya observatoriya AN SSSR, Pulkovo.  
Chlen-korrespondent AN SSSR.  
(Moon)

MIKHAYLOV, A.A. (Pulkovo)

Outstanding American astronomer. Priroda 51 no.11:96-98  
N '62. (MIRA 15:11)

1. Chlen-korrespondent AN SSSR.  
(Campbell, William Wallace, 1862-1938)

MIKHAYLOV, A.A., otv. red.; DADAYEV, A.N., red.; VASIL'YEVA, L.M., red.; KAYDANOVSKIY, N.L., red.; MARKOV, A.V., red.; POTTER, Kh.I., red.; SHCHEGOLEV, D.Ye., red.; SMIRNOVA, M.Ye., red. izd-va; KONDRAT'YEVA, M.N., tekhn. red.

[New developments in lunar studies] Novoe o Lune; doklady i soobshchenia na.... Moskva, Izd-vo Akad. nauk SSSR, 1963.  
(MIRA 16:5)  
426 p.

1. Mezhdunarodnyy simpozium po issledovaniyu luny, Pulkovo, 1960. 2. Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR, Pulkovo (for Mikhaylov, Kaydanovskiy, Markov, Potter, Shchegolev). 3. Chlen-korrespondent Akademii nauk SSSR (for Mikhaylov).  
(Moon)

MIKHAYLOV, A.A.; NEMIRO, A.A.

Symposium on astronomy, held in Paris. Vest. AN SSSR 33 no.10:  
73-74 0 '63. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Mikhaylov).

MIKHAYLOV, A.A.

The constant of aberration and solar parallax. Astron. zhur. 40  
no. 6: 961-964 N-D '63. (MIRA 16:12)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.

MIKHAYLOV, A.A., akademik

12th Congress of the International Astronomical Union in  
Hamburg. Vest. AN SSSR 34 no.12:63 D '64 (MIRA 18:1)



WILSON, A.A.

Gravity and ... (MIRA 12:10)

1. Gravity and ...

MIKHAILOV, A.A., akademik (Pulkovo)

First attempt to measure tidal power; gravimetric experiments of  
Imonoscov. Priroda 54 no.10:104-107 '65.

(MIRA 18:10)

MIKHAYLOV, A. A.

[Star atlas; four celestial maps up to 50° of southern  
declination containing all stars up to magnitude 5<sup>1</sup>/<sub>2</sub>]  
Zvezdnyi atlas; chetyre karty zvezdnogo neba do  
50° iuzhnogo skloneniia, soderzhashchie vse zvezdy to 5<sup>1</sup>/<sub>2</sub>  
velichiny. Moskva, Nauka, 1965. 12 p. (MIRA 18:8)

GNEVYSHEV, Matislav Nikolayevich; MIKHAYLOV, A.A., akademik, otv.  
red.;

[Kislovodsk Mountain Astronomical Observatory] Kislovodskaya  
gor'naya astronomicheskaya stantsiya. Moskva, Nauka, 1965.  
47 p. (MIRA 18:8)

MIKHAYLOV, A.A.

Phytoplankton of the Sea of Crete. Trudy SBS 17:3-12 '64.

(MIRA 18:6)

MIKHAYLOV, A. A.

B. T. R.  
V. 3 No. 3  
Mar. 1954

Metals- Finishing,  
Polishing, and Cleaning

3717\* Certain Peculiarities of Polishing of Chromium-Plated Parts. (Russian) <sup>1</sup>S. A. Kameney and <sup>2</sup>A. A. Mikhailov |  
*Stanki i Instrument*, v. 11, no. 7, July 1953, p. 20-23 |  
Wear resistance depends on nature of mechanical processing |  
Tables, graphs.

Abstract A-44434, 12 Aug 55

1. MICHAEL, J. H. H.

B. T. R.  
Vol. 3 No. 4  
Apr. 1954  
Metals-Mechanical Working

5430\* Machining of Porous Chromium Parts. (Russian.)  
N. A. Karmeney, A. A. Mikhalev, and B. A. Shluger. *Stanki i Instrumenty*, v. 24, no. 10, Oct. 1953, p. 28-29.  
Describes methods of maintaining geometrical form and means of preventing closing of pores. Graphs. 8 ref.

③ met

6/15

MIKHAYLOV, A. A., Engine ring-Candidate--

"An Investigation of the Technological Factors of Polishing in the Quality of the Surface of Chromium-Plated Components." Cand Tech Sci, Moscow Automotive Mechanics Inst, 22 Oct 54. (VM, 13 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55



MIKHAYLOV, A. A.

USSR/Miscellaneous - Metal finishing

Card : 1/1

Authors : Mikhaylov, A. A.

Title : The influence of grinding conditions on the surface smoothness of chrome-plated components, polished with grinding wheels.

Periodical : Stan. i Instr., Ed. 7, 21 - 23, July 1954

Abstract : Horizontal surface-grinding of chrome-plated components, with the aid of silicon-carbide and corundum grinding stones, was investigated. Tests were conducted on the hardness of grinding wheels, coarseness of abrasive grains, and their influence on the surface smoothness of components. Work speeds and feeds for individual grinding operations are given. Graphs; tables.

Institution : ....

Submitted : ....

Mikhaylov, A. A.

AID P - 5083

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 12/26

Authors : Kamenev, N. A. and A. A. Mikhaylov, Kandidats  
Tech. Sci.

Title : Destruction of chrome-plated machine parts caused by  
grinding fissures.

Periodical : Vest. mash., 5, 43-46, My 1956

Abstract : Destruction tests of chrome-plated machine parts show  
that in many cases the destruction is caused by  
fissures appearing under specific conditions of the  
grinding of chrome-plated surfaces. This paper  
examines some results of the above tests and gives  
recommendations for preventing the appearance of  
fissures during the machining of chrome-plated parts. 2  
tables, 3 illustrations, 5 references.

Institution : None

Submitted : No date

MIKHAYLOV, A. A.

1241\* (Russian.) The Effect of the Grinding Procedure on Development of Channels on Porous Chromium. Vliyanie uslo-vii shlifovaniia na izmenenie tsifry kanalov poristogo khroma. A. A. Mikhailov. Vestnik Mashinostroeniia, v. 38, no. 9, Sept. 1956, p. 52-56.

DATA on the influence of various factors in grinding metal parts prior to Cr plating, on the extent of the channel network on the porous Cr coating. Number of channels increases with the force applied in the grinding.

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SOV 137-58 7-15451

Translation from Referativnyi zhurnal, Metallurgiya, 1957, No 7, p 275 (USSR)

AUTHOR Mikhaylov, A. A.

TITLE Changes in the Properties of Chrome Coatings After Mechanical Treatment (Izmeneniye svoystv khromovogo pokrytiya posle mekhanicheskoy obrabotki)

PERIODICAL V sb. Teoriya i praktika elektrolit khromirovaniya Moscow AN SSSR 1957 pp 117-146

ABSTRACT The influence of the conditions of chrome plating and polishing (before and after chrome plating) on microhardness (M) and porosity (P) of a chrome coating (CC) was studied on a number of machine parts and special specimens. Chrome plating was performed in a bath composed of (in g/l):  $\text{CrO}_3$  230-250,  $\text{H}_2\text{SO}_4$  2.4  $\text{Cr}^{3+}$  4-6, with cathode cd 50 amp/dm<sup>2</sup> and electrolyte temperature of 64°C. Thickness of CC was 0.20 ± 0.02 mm. Polishing of the parts after chrome plating was done with E60 SM2 K-5 disk. Measurement of the finish of the surface was done by means of a KV-4 profilometer and an IZP-17 profilograph. M was measured by the PMT-3 apparatus. The number of areas of porous chrome per mm<sup>2</sup> was counted on.

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